Yash Shewalkar

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Portfolio: shewalkar.tech LinkedIn: yash-shewalkar GitHub: yash-shewalkar

Coursework: Data Structures and Algorithms, Object Oriented Programming, Database

Management Systems, Software Design and Methodologies.



Projects

JustQL: Al Powered SQL Assistant: (Next.js, Flask, FastAPI, LangChain)

March 2025

- Built a multi- Al agents RAG system using LangChain, Qwen 2.5 (LLM model), integrating 3+ Al agents for end-to-end SQL generation.
- Designed agent to generate OLAP-friendly schema from text/PDFs; optimized and accurate query generation agent via vector store and Copilot-style SQL auto-complete agent.
- Enabled natural language to SQL conversion with dialect support for Trino and Spark.
- Integrated a self-evaluating agent for improved accuracy and dynamic token limiter, reducing LLM response time by 10x.

Portfolio Website: (Next.js, React.js, Typescript, NextAuth.js)

Dec 2024 - Jan 2025

- Created a personal website with 5 main sections –About, Projects, Blog, Bookmarks (using LinkPreview API), and Contact.
- Implemented 5 main features: Responsive and Interactive UI with ShadCN & Aceternity, animated project gallery, and contact me form (using Nodemailer).
- Added Google Sign-In for gated features in future and deployed on Vercel with CI-enabled seamless updates.

ANPR Based Entry System: (Python, OCR, Firebase)

Apr 2024 - May 2024

- Built a real-time ANPR system using YOLOv8, OCR, and Streamlit; optimized detection with a 50-frame buffer for accuracy.
- Optimized a YOLOv8 based model for real-time number plate recognition by implementing 50-frame buffer to store detection and extracting the text with highest occurrence using OCR.
- Extracted stable license numbers by aggregating most frequent OCR results every 5 seconds.
- Developed an admin dashboard to monitor entry logs & visualize daily, weekly, and monthly approvals.
- Integrated QR based access request flow via forms, eliminating the need for additional apps.

Skills

- Programming: C++, Python, Java
- Web development: Typescript, Next.Js, Tailwind, Node.js, Express.Js, React.Js, RESTful API
- Databases: MongoDB, MySQL, PostgreSQL, Prisma ORM
- Tools: VS code, Google Colab, Postman, Git/Github

Education

Vishwakarma Institute of Technology, Pune
BTech: Artificial Intelligence and Data Science (CGPA: 8.63)
Ambrosia Jr College, Nashik
Higher Secondary Education (81%)

Expected - 2026

2022

Achievements

- Secured 1st Runner up position at UBS-India hackathon (24-hour offline).
- Secured Finalist spot at Inspiron 4.0 (top 30 out of 230+ teams); ranked in top 8 for chosen problem at COEP's 36-hour national hackathon.
- Published research paper "Fake News Detector for Combatting Misinformation in Digital Age" in the International Conference on Machine Vision and Augmented Intelligence 2023